SECTION II: REMARKS

A.   Response to Claim Rejections Under 35 U.S.C. 103(a)

The December 11, 2009 Office Action contained numerous rejections under 35
U.S.C. 103(a), including:

- a rejection of claims 4, 2, 5, 6, 16, 14 and 17-18 as being unpatentable for
  obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter
  "Vaananen") in view of U.S. Patent No. 6,885,871 to Caloud (hereinafter,
  "Caloud");

- a rejection of claims 7-9, 12, 19-21, and 24 as being unpatentable for obviousness
  over Vaananen in view of 3GPP TS 23,140 v4.4.0 (2001-09) (3rd Generation
  Partnership Project; Technical Specification Group Terminals; Multimedia
  Messaging Service (MMS); Functional description; Stage 2 (Release 4)"
  (hereinafter "3GPP MMS"); and

- a rejection of claims 10-11 and 22-23 as being unpatentable for obviousness over
  Vaananen and 3GPP MMS, further in view of Caloud.

Such rejections are traversed for the reasons set out below.

1.   Law Regarding Obviousness Rejections

To establish *prima facie* obviousness of a claimed invention, all the claim
limitations must be taught or suggested by the prior art. MPEP §2143.03. Furthermore, it
is fundamental to a proper rejection of claims under 35 U.S.C. § 103 that an examiner
must present a convincing line of reasoning supporting the rejection[1]. The Supreme
Court affirmed the validity of such approach, stating that "**there must be some
articulated reasoning with some rational underpinning to support the legal
conclusion of obviousness.**" *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82
USPQ2d 1385, 1396 (2007).   In *KSR*, the Supreme Court further confirmed that

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[1] MPEP 2144 ("Sources of Rationale Supporting a Rejection Under 35 U.S.C. 103"), citing *Ex parte Clapp*,
227 USPQ 972 (Bd. Pat. App. & Inter. 1985).

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references that teach away from the invention are evidence of the non-obviousness of a claimed invention [2], and reaffirmed the principle that a factfinder judging patentability "should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning."

Following *KSR*, the Federal Circuit held that although "rigid" application of the "teaching, suggestion, or motivation" ("TSM") test for obviousness is improper, **application of a flexible TSM test remains the primary guarantee against improper "hindsight" analysis**, because a flexibly applied TSM test ensures that the obviousness analysis proceeds on the basis of evidence in existence before time the application was filed, as required by 35 U.S.C. § 103[3].

In considering a reference for its effect on patentability, the reference is required to be considered in its entirety, <u>including portions that **teach away**</u> from the invention under consideration. Simply stated, the prior art must be considered as a whole[4]. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art[5]." The Federal Circuit and its predecessor court have repeatedly held that **if references taken in combination would produce a 'seemingly inoperative' device, then such references teach away from the combination** and cannot serve as predicates for a *prima facie* case of obviousness[6].

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[2] *KSR*, 82 USPQ2d at 1395, 1399

[3] *Ortho-McNeil Pharm. Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 86 USPQ2d 1196, 1201-02 (Fed. Cir. 2008).

[4] *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (emphasis added); MPEP § 2141.02.

[5] *Application of Wesslau*, 353 F.2d 238, 241 (C.C.P.A. 1965); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*, 796 F.2d 443, 448 (Fed. Cir. 1986), cert. denied, 484 U.S. 823 (1987).

[6] *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 60 USPQ2d 1001, 1010 (Fed. Cir. 2001); *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 52 USPQ2d 1294, 1298 (Fed. Cir. 1999) (proposed combination of references that would be inoperable for intended purpose supports teaching away from combination); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (inoperable modification teaches away); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969) (references teach away from combination if combination produces seemingly inoperative device)

A suggestion to combine references **cannot require substantial reconstruction or redesign** of such references, **or a change in basic operating principles** of a construction of a reference, to arrive at the claimed invention[7].

2.   *Disclosure of Vaananen*

Vaananen discloses a wireless network system that enables direct wireless delivery of audio and/or video messages from a first user agent to a second user agent, and use of a lookup server to enable retrieval of a telephone number or an IP address of a recipient.

In the Final Office Action dated December 11, 2009 the examiner conceded that Vaananen fails to disclose the following elements recited in Applicants' claims:

- an international mobile subscriber identity (IMSI) address[8];
- a home location register (HLR)[9]; and
- a first MMSE that is different from a second MMSE, and communication between two MMS servers.[10]

3.   *Disclosure of Caloud*

Caloud discloses use of a communications gateway 128 for permitting communications with one or more mobile terminals 108. The communications gateway 128 includes a microprocessor 129, interface circuits 130 for interfacing with a GSM network 118, interface circuits 131 for interfacing with an Internet network 106, program memory 132, a memory 151 to register a public Internet address of the gateway, communications means allocation memory 133, and access control memory 134, with elements 129 to 134 connected through a bus 135[11]. It is clear that Caloud's communications gateway 128 does not constitute a cell network, since Caloud states that "the gateway 128 ... comprises means to get connected and communicate with the cell network 118." Rather that disclosing direct wireless delivery of communications

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[7] *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).
[8] December 11, 2009 Office Action, page 5.
[9] December 11, 2009 Office Action, page 7.
[10] December 11, 2009 Office Action, page 9.
[11] See Caloud, col. 6, lines 27-34.

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between devices (as embodied in Applicants' claims), mobile device communications according to Caloud's system are routed "through the communications gateway 128[12]." Utilization of a communications gateway according to Caloud for directing communications between devices contradicts Applicants' disclosure and claims[13].

4.   Disclosure of 3GPP MMS

3GPP MMS discloses architecture and operation of MMS networks. Such architecture **requires** use of a "MMS Relay/Server responsible for storage and handling of incoming and outgoing messages and for the transfer of messages between different messaging systems[14]." The mandatory nature of such a MMS Relay/Server is noted at page 18 of 3GPP MMS, which states: "[w]hen a user intends to send an MM to one or several destinations the **MM shall be submitted** to the originator MMS Relay/Server." The routing function of the MMS Relay/Server is further emphasized at page 19 of 3GPP MMS, which states:

> "Upon reception of an MM from an originator MMS User Agent ... [a] **MMS Relay/Server**:
>
> <p style="text-align:center">* * *</p>
>
> - is responsible for **retaining the MM until the earliest desired time of delivery**, if the optional feature of earliest time of delivery is supported by the originator MMS Relay/Server. If this feature is not supported then the MM is immediately routed forward, [and]
>
> <p style="text-align:center">* * *</p>
>
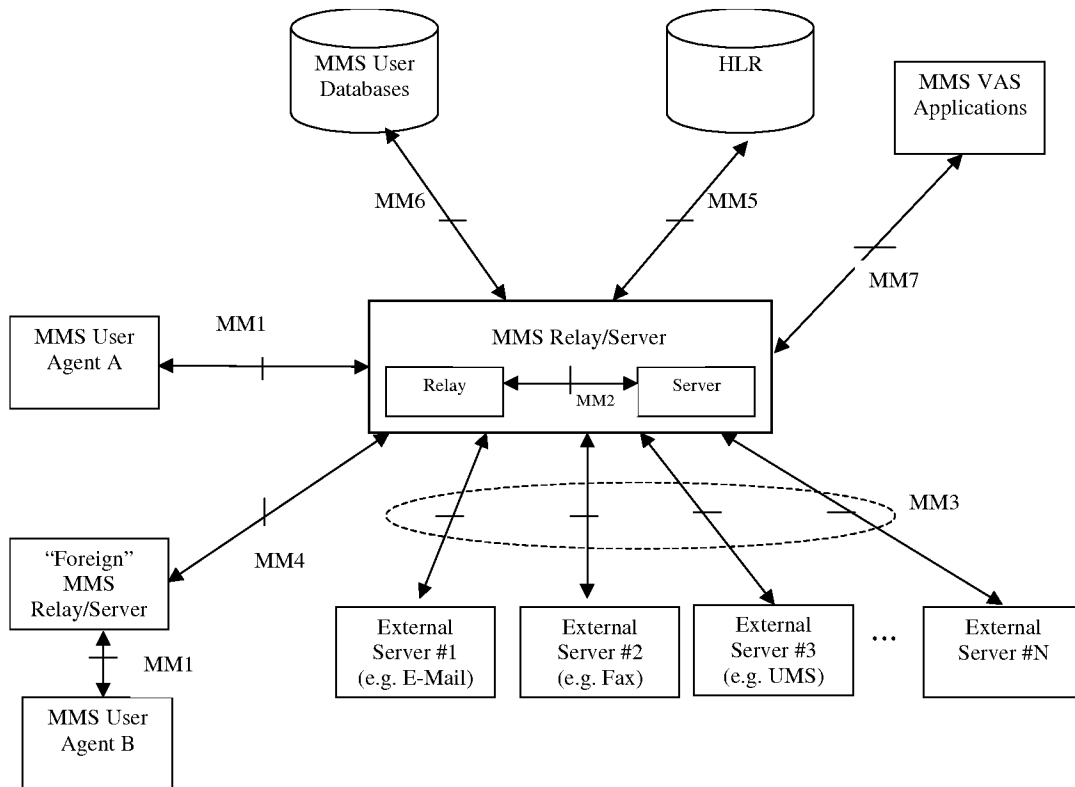> - is responsible to **route the MM towards the MM recipients ... ."**

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[12] See Caloud, col. 6, lines 56-56-62, referring to a mobile terminal sending and/or receiving communications "through the communications gateway 128."

[13] See, e.g., Application, pages 3-4: "The conventional ways of delivering MMs between different user agents in the same or different MMSEs, as illustrated above, suffer from serious drawbacks. A **main drawback is that it wastes valuable network resources**, particularly with respect to MMS relay/servers **since the MMS relay/servers are required to process and forward voluminous MMs exchanged among numerous MMS user agents**. ... [I]t requires high performance servers with a very large storage capacity since MMs are typically very large in size. This will add considerable costs for the MMS service provider to deploy and maintain the network. Therefore, there is a need to provide a wireless network system for efficiently delivering MMs that not only saves the valuable network resources, but also speeds up delivery of the MMs between two MMS user agents."
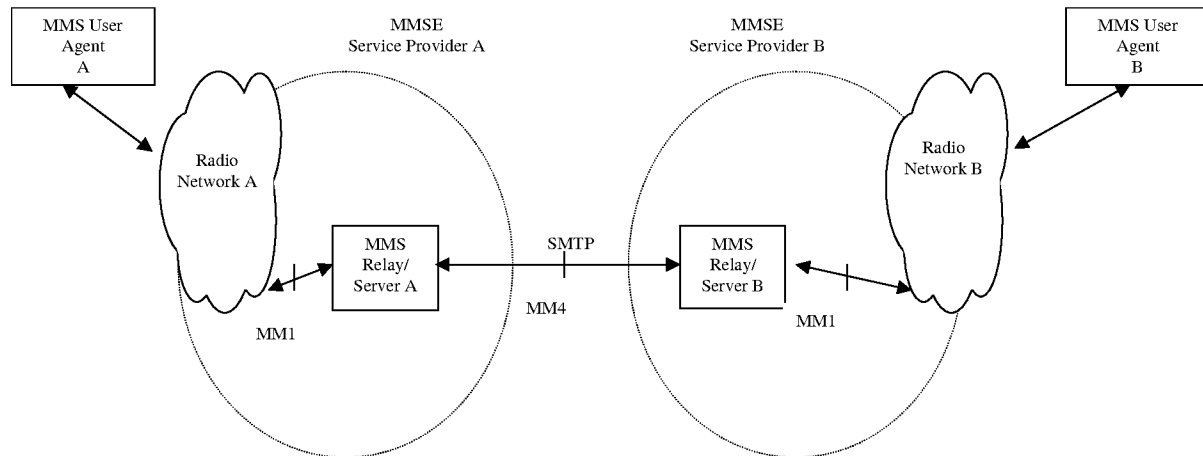
[14] 3GPP MMS, page 13.

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MMS Reference Architecture consistent with the foregoing text is disclosed in 3GPP MMS at Figure 4 thereof, as reproduced below.

The foregoing excerpts from 3GPP MMS indicate that the MMS Relay/Server provides a primary message storage and routing function, and that **all messages must be routed through a MMS Relay/Server**.

3GPP MMS further discloses that messages may be transferred between multiple MMSE's, with reference to Figure 5 thereof, as reproduced below.

The foregoing Figure of 3GPP MMS again relies upon a MMS Relay/Server within each MMSE to provide a primary message routing and storage function.

The foregoing rejections are discussed below.

5.   *Patentable Distinctions of Claims 4, 2, 5, 6, 16, 14 and 17-18 Over the Cited Art*

In the Final Office Action dated December 11, 2009, claims 4, 2, 5, 6, 16, 14 and 17-18 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter "Vaananen") in view of U.S. Patent No. 6,885,871 to Caloud (hereinafter, "Caloud"). Such rejections are inapposite to Applicants' claims.

a.   *The Cited Art Fails to Disclose Direct Wireless Delivery of Multimedia Messages Between User Agents as Required by All of Applicants' Claims*

In the Final Office Action dated December 11, 2009, the examiner alleged:

"There is no limitation about 'direct' delivery in the obtaining means [recited in Applicants' claim 4]. Caloud does not teach away from any wireless network system that enables **direct** wireless delivery of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent) and from means for forwarding

the obtained Internet address to the first MMS user agent to **enable** the first MMS user agent to wirelessly deliver the multimedia message **directly** to the second MMS user agent using the obtained Internet address.[15]

Applicants respectfully disagree with the foregoing allegations made by the examiner. First, Applicants' claim 4 specifically relates to a wireless network system "that enables **direct wireless delivery** of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent" in the preamble thereof, and further recites the feature "to enable the first MMS user agent **to wirelessly deliver the multimedia message directly** to the second MMS user agent using the obtained Internet address" in connection with the means for forwarding. The examiner's allegation that "there is no limitation about 'direct' delivery in the obtaining means" is irrelevant, since claim 4 clearly refers to **direct wireless delivery** multiple times in portions other than the 'obtaining means' clause.

Direct wireless delivery between MMS user agents is also recited in Applicant's other independent claims 7 and 16[16].

Contrary to the examiner's allegation, Caloud <u>does</u> teach away from direct communication between a personal computer and a cell phone such that "[t]he gateway 128 is thus in a position to filter messages addressed to the terminal 108 and thus avoid undesirable messages[17]." Caloud's communications gateway 128 acts as an address translator and message forwarding system using memory 132a (Network Address Translator, "NAT." col. 6, lines 34-39) in conjunction with Table 133 to match the public Internet address of mobile terminal 108 provided to caller set 101 in Step 203 to its private address and then forward the message to caller set 101's private address. Further, Caloud's communications gateway 128 acts as a firewall to block messages that do not

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[15] December 11, 2009 Office Action, page 3.
[16] See claim 7 ("wireless network system for enabling **direct wireless delivery of a multimedia message** from a first multimedia messaging service (MMS) user ... to a second MMS user agent" and "agent to enable the first MMS user agent to **wirelessly deliver the multimedia message directly to the second MMS user agent**"; claim 16 ("method for enabling **direct wireless delivery of a multimedia message** from a first multimedia messaging service (MMS) user agent to a second MMS user agent" and "forwarding the obtained Internet address to the first MMS user agent to enable the first MMS user agent to **wirelessly deliver the multimedia message directly to the second MMS user agent**").
[16] 35 U.S.C. 112, fourth paragraph
[17] See Caloud, col. 8, lines 61-63.

have matching entries in Tables 133 and 134[18]. In the system described by Caloud, the caller set 101 is not provided with the IMSI or MSISDN number, and only is able to send messages to the communications gateway, which are first verified and then transferred to the mobile terminal 108 using the address translation in Table 133 within communications gateway 128. In other words, in the system described by Caloud, both the enablement of the call and the message itself must go through communications gateway 128. No part of Caloud's disclosure teaches, suggests, or permits direct communication between two parties without use of an intervening communications gateway 128.

Thus, Caloud does <u>not</u> teach **direct** <u>wireless delivery</u> of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent), nor does Caloud disclose <u>means for forwarding the obtained Internet address to the first MMS user agent to enable the first MMS user agent to wirelessly</u> **deliver the multimedia message directly** <u>to the second MMS user agent using the obtained Internet</u> <u>address</u>.

Since each of Applicants' independent claims 4, 7, 16 recite direct wireless delivery of multimedia messages between MMS user agents[19], and the cited art fails to disclose such feature, the rejections of such claims under 35 U.S.C. 103 should be withdrawn. Since dependent claims inherently include all of the features of the claims on which they depend[20], the rejections of all claims depending (whether directly or indirectly) from claims 4, 7, or 16 should likewise be withdrawn.

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[18] See Caloud, col. 6, lines 34-39 and col. 6, lines 59-66
[19] See claim 4 ("wireless network system that enables **direct wireless delivery of a multimedia message**" and "means for forwarding the obtained Internet address to the first MMS user agent to enable the first MMS user agent to **wirelessly deliver the multimedia message directly to the second MMS user agent**"); claim 7 ("wireless network system for enabling **direct wireless delivery of a multimedia message** from a first multimedia messaging service (MMS) user ... to a second MMS user agent" and "agent to enable the first MMS user agent to **wirelessly deliver the multimedia message directly to the second MMS user agent**"; claim 16 ("method for enabling **direct wireless delivery of a multimedia message** from a first multimedia messaging service (MMS) user agent to a second MMS user agent" and "forwarding the obtained Internet address to the first MMS user agent to enable the first MMS user agent to **wirelessly deliver the multimedia message directly to the second MMS user agent**").
[20] 35 U.S.C. 112, fourth paragraph.

> b.   *The Cited Art Fails to Disclose Obtaining and Sending an IMSI*
>   *Address as Required by Applicants' Claims 4 and 16 (and All*
>   *Claims Depending Therefrom)*

Applicants' independent claim 4 recites, *inter alia*, "means for obtaining an Internet address of the second MMS user agent based on the MSISDN of the second MMS user agent, if the MSISDN is not an Internet address of the second MMS user agent ... wherein the obtaining means includes ... means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network, means for sending the obtained IMSI address to the core network, and means for obtaining the Internet address corresponding to the IMSI from the core network."

Applicants' independent claim 16 similarly recites, *inter alia*, "(b) obtaining an Internet address of the second MMS user agent based on the MSISDN of the second MMS user agent, if the MSISDN is not an Internet address of the second MMS user agent ... wherein step (b) includes ... (ii) obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network, (iii) sending the obtained IMSI address to the core network, and (iv) obtaining the Internet address corresponding to the IMSI from the core network."

In the Final Office Action dated December 11, 2009, the examiner alleged the following with respect to claims 4 and 16[21]:

> "Vaananen discloses the claimed invention except for the international mobile subscriber identity (IMSI) address. **Caloud teaches** the means for sending the MSISDN to a core network (col. 4, lines 38-52, program memory 103 and interface circuits 104), **means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network** (FIG. 1, the resolution table 127 col. 6, lines 3-20, column 127B corresponds to an IMSI number and/or an MSISDN), means for sending the obtained IMSI address to the core network (col. 4, lines 38-52, program memory 103 and interface circuits 104) **and means for obtaining the Internet address corresponding to the IMSI from the core network** (FIG. 1, the

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[21] At page 8 of the December 11, 2009 Office Action, the examiner alleged that "[c]laims 16-18 are of the same scope as claims 4-6 respectively." Applicant respectfully disagrees. Although claims 4 and 16 have similar scope, the scope of each claim is not identical – not least of which for the reason that claim 4 is a system claim, and claim 16 is a method claim. Although common arguments distinguishing independent claims 4 and 16 over the cited art are made herewith, Applicant reserves the right to present independent and distinct arguments for patentability of claims 4 and 16, if necessary or desirable to do so in the future.

resolution table 127, col. 6, lines 3-20). It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Caloud's teaching into Vaananen's system for the purpose of serving MMS User Agents across international MMSEs by interworking between international MMS service providers using IMSI, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers."[22]

Applicants agree that Vaananen fails to disclose use of an IMSI address, but respectfully disagrees with the examiner's allegation that Caloud discloses the specific means utilizing an IMSI address recited in independent claim 4, or the specific method steps utilizing an IMSI address recited in independent claim 16. The examiner alleges that Caloud teaches "means for obtaining the Internet address corresponding to the IMSI from the core network (FIG. 1, the resolution table 127, col. 6, lines 3-20)[23]." Such allegation is incorrect, and, in fact, contradicts Caloud's avowed goals of **authorizing** communications between the two parties[24] and **filtering** communications between the two parties[25].

A schematic and description of the steps of the method of the invention according to Caloud (Caloud, Figure 2) are provided below.
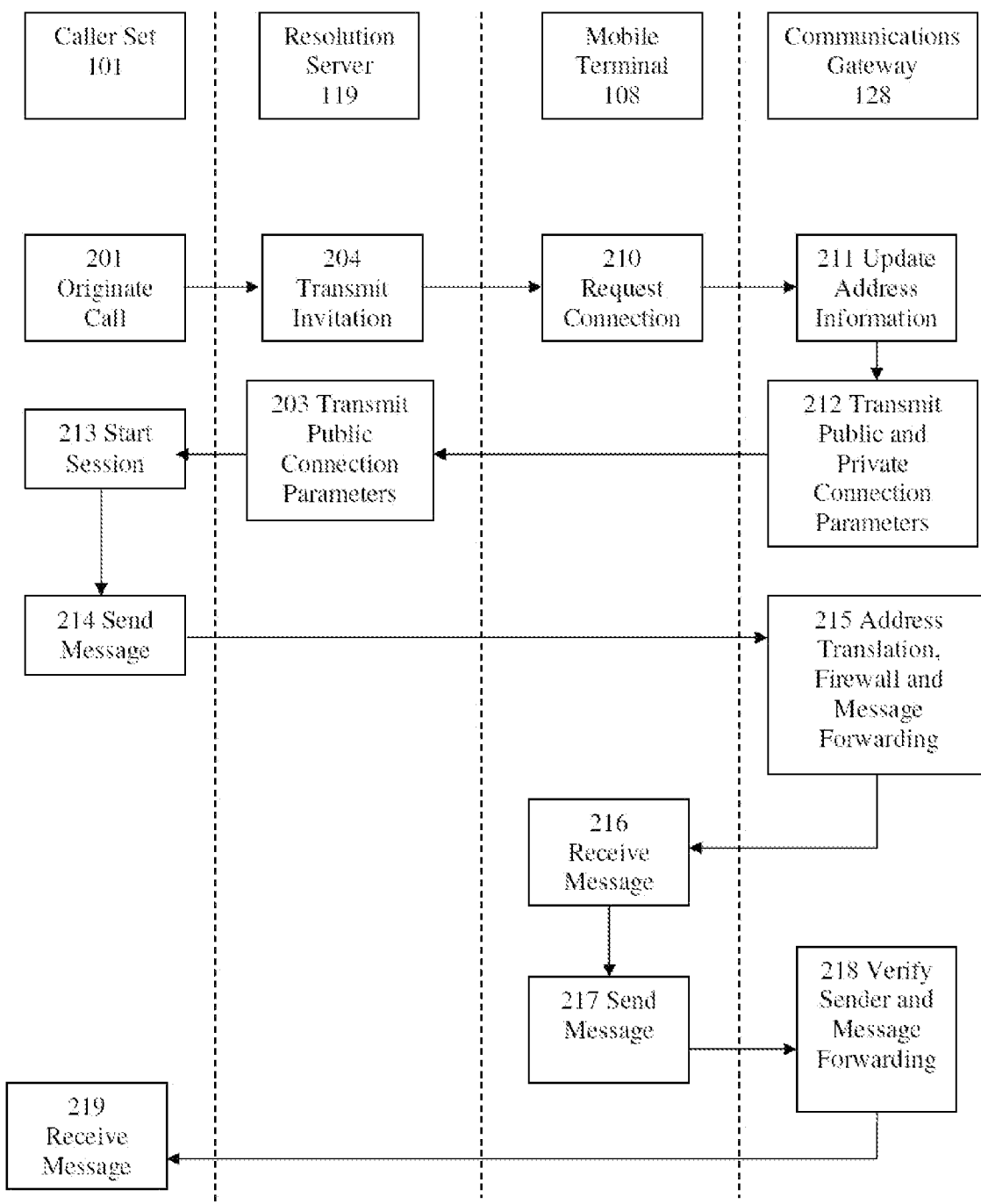
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[22] December 11, 2009 Office Action, pages 5-6.
[23] December 11, 2009 Office Action, page 6.
[24] See, e.g., Caloud, col. 10, lines 14-19 ("[t]he gateway 218 then ascertains that the protocol used has been truly authorized by means of table 133 and the identifier of the sender of this frame, namely the private Internet address of terminal 108) and col. 6, lines 59-61 ("[t]he table 134 enables the fire wall function of the gateway 1238 to know which are the public address holders that are entitled to send out messages through gateway 128").
[25] See, e.g., Caloud, col. 8, lines 61-63: "[t]he gateway 128 is thus in a position to filter the messages addressed to the terminal 108 and thus avoid undesirable messages."

Caller Set 101	Resolution Server 119	Mobile Terminal 108	Communications Gateway 128

201 Originate Call	204 Transmit Invitation	210 Request Connection	211 Update Address Information

| 213 Start Session | 203 Transmit Public Connection Parameters | | 212 Transmit Public and Private Connection Parameters |

| 214 Send Message | | | 215 Address Translation, Firewall and Message Forwarding |

216 Receive Message

217 Send Message

218 Verify Sender and Message Forwarding

219 Receive Message

- Step 201: Caller set 101 sends a call connection initiation step to resolution server 119 including the symbolic address of mobile terminal 108 (the terminal to be connected)[26].

- Step 204: Resolution server 119 sends a message to the mobile terminal telephone number of mobile terminal 108 which is obtained from Table 127 including the identification of caller set 101 and the connection parameters[27].

- Step 210: Mobile terminal 108 sends a request to set up a connection to resolution server 119 through the Internet 106[28].

- Step 211: Communications gateway 128 updates Table 133 with mobile terminal 108's IMSI or telephone number (MSISDN) (133c) as well as its private internet address 133b and public internet address 133a[29]. Table 134 is also updated in step 211 with the public Internet address of caller set 101[30].

- Step 212: Communications gateway 128 constitutes a message to resolution server 119 containing the connection parameters allocated by communications gateway 128 in step 211 including the public Internet address and the IMSI or telephone number of mobile terminal 108[31].

- Step 203: Resolution server 119 sends a message to caller set 101 with the public Internet address of mobile terminal 108 as allocated in Table 133[32].

- Step 213: Caller set 101 receives the message from Resolution server 119 and now has the public Internet address through which it can contact mobile terminal 108[33].

- Step 214: A message (frame) to the public Internet address of mobile terminal 108 is sent from caller set 101 to communications gateway 128[34].

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[26] E.g., Caloud, col. 7, line 5-15.
[27] E.g., Caloud, col. 7, lines 45-53.
[28] E.g., Caloud, col. 8, lines 19-22.
[29] E.g., Caloud, col. 7, lines 35-45.
[30] E.g., Caloud, col. 8, lines 54-61.
[31] E.g., Caloud, col. 9, lines 9-16.
[32] E.g., Caloud, col. 9, lines 43-48.
[33] E.g., Caloud, col. 9, lines 51-55.
[34] E.g., Caloud, col. 9, lines 56-59.

- Step 215: Communications gateway 128 receives information (frame) from caller set 101 and using Table 133 and the public Internet address in the message, looks up the private internet address of mobile terminal 108 and transfers the message to mobile terminal 108[35].

- Step 216: Mobile terminal 108 receives message (frame).[36]

- Step 217: Mobile terminal 108 sends message (frame) to communications gateway 218[37].

- Step 218: Communications gateway 128 checks message from mobile terminal 108 against address information in Table 133 to make sure it is authorized to send a message to caller set 101 and, if so, sends the message to caller set 101[38].

- Step 219: Message is received from mobile terminal 108 at caller set 101[39].

From this description, it is clear that Caloud's **caller set 101 (the originating terminal) is _not_ provided the mobile terminal 108's (the receiving terminal) internet address directly from the core network** as alleged by examiner. Instead, sending of the internet address of the mobile terminal 108 to the caller set 101 of Caloud requires execution of the following steps:

1. Resolution server 119 sends a message to mobile terminal 108 (the receiving terminal) with the identification of caller set 101 (the originating terminal) (step 204).

2. Mobile terminal 108 authorizes the call (step 210).

3. Mobile terminal 108 updates table 133 in communications gateway 128 with its IMSI/MSISDN, private and public Internet address (step 211).

4. Communications gateway sends updated address information to resolution server 119 to update table 127 (step 212).

5. Resolution server 119 sends Internet address from table 127 to caller set 101.

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[35] E.g., Caloud, col. 9, lines 62-66 to col. 10, lines 1-9.
[36] E.g., Caloud, col. 10, lines 2-4.
[37] E.g., Caloud, col. 10, lines 10-14.
[38] E.g., Caloud, col. 10, lines 14-24.
[39] E.g., Caloud, col. 10, lines 25-27.

It is therefore clear that Caloud fails to disclose "means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network, means for sending the obtained IMSI address to the core network, and means for obtaining the Internet address corresponding to the IMSI from the core network" as recited in Applicants' claim 4, and Caloud fails to disclose "(ii) obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network, (iii) sending the obtained IMSI address to the core network, and (iv) obtaining the Internet address corresponding to the IMSI from the core network" as recited in Applicant's claim 16.

Moreover, any hypothetical modification of Caloud to include the foregoing features of Applicants' claims 4 and 16 would require a reconstruction of the topology of Caloud and a change in the basic operating principles of Caloud. Any such modification would not support an obviousness rejection, consistent with the Federal Circuit's holding that a suggestion to combine references **cannot require substantial reconstruction or redesign** of such references, **or change in basic operating principles** of a construction of a reference, to arrive at the claimed invention[40].

Since the examiner concedes that Vaananen fails to disclose any IMSI address, and it has been demonstrated above that Caloud fails to disclose the foregoing features of claims 4 and 16, the rejections of claims 4 and 16 under 35 U.S.C. 103 should be withdrawn. Since dependent claims inherently include all of the features of the claims on which they depend[41], the rejections of all claims depending (whether directly or indirectly) from claims 4 or 16 should likewise be withdrawn.

> c.   *The Cited Art Fails to Disclose Obtaining an IMSI Address From a Home Location Register (HLR) as Recited in Applicants' Claims 5 and 17*

Applicant's dependent claim 5 recites, *inter alia*: "the MSISDN is sent to a home location register (HLR) in the core network; the IMSI address is obtained from the HLR; the obtained IMSI is sent to a user database in the core network; and the Internet address

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[40] *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).
[41] 35 U.S.C. 112, fourth paragraph.

is obtained from the user database." Applicant's dependent claim 17 similarly recites,

inter alia: "at step (i) the MSISDN is sent to a home location register (HLR) in the core

network; at step (ii) the IMSI address is obtained from the HLR; at step (iii) the IMSI is

sent to a user database in the core network; and at step (iv) the Internet address is

obtained from the user database."

In the Final Office Action dated December 11, 2009, the examiner alleged that

with respect to Applicants' claims 5 and 17, Caloud teaches the following:

> "The MSISDN is sent to a home location register (HLR) in the core
> network (col. 5, lines 39-54, the resolution server 119 is connected to the
> HLR of the GSM network through SS7/TCAP/MAP, this enables the
> interface between the SIP-NAT server and the HLR. Note that the HLR
> contains mobile information including MSISDN/IMSI is well known in
> the art.); the IMSI address is obtained from the HLR (col. 5, lines 39-45,
> the resolution server 119 is connected to the HLR of the GSM network,
> and col. 3, lines 32-45, the MSISDN/IMSI information are updated by the
> SIP-NAT server via interface with the HLR.); the obtained IMSI is sent to
> a user database in the core network (col. 3, lines 41-45, updates the
> resolution table); and the Internet address is obtained from the user
> database (col. 6, lines 3-5, a table could be considered as a preliminary
> database.). It would have been obvious to a person with ordinary skill in
> the art at the time the invention was made to incorporate Caloud's
> teaching into Vaananen's system for the purpose of serving MMS User
> Agents across international MMSEs by interworking between
> international MMS service providers using IMSI, thereby increasing
> satisfaction/convenience for MMS users and revenues for MMS service
> providers."[42]

Applicants respectfully disagree with the examiner's characterization of Caloud.

At col. 5, lines 39-54 thereof, Caloud discusses the use of the HLR to **verify** the state of

the terminal, **NOT** as part of the chain of steps for obtaining and transmitting the Internet

address to the calling party. Specifically, Caloud states:

> "... for a connection to the HLR of the GSM network, enabling access to
> the information on presence ... it must be noted that there may be an
> interface between the SIP/NAT server and the HLR by which it is **possible
> to verify the state of the terminal** and, if it is not attached to the GPRS
> network, to send back an error message stating "not contactable"[43].

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[42] December 11, 2009 Office Action, page 7.
[43] Caloud, col. 5, lines 43-49

Utilization of the HLR by Caloud to verify the state of the terminal cannot be equated with use of a HLR to obtain the IMSI address from the HLR. Caloud therefore fails to disclose the above-identified features of claims 5 and 17.

Since the examiner has conceded that Vaananen fails to disclose use of any IMSI address, and it has been demonstrated that Caloud fails to disclose obtaining an IMSI address from a HLR as recited in Applicants' claims 5 and 17, the cited art fails to disclose all the elements of Applicant's claims. For at least this additional reason, withdrawal of the rejections of claims 5 and 17 under 35 U.,S.C. 103 is warranted, and is respectfully requested.

6. *Patentable Distinctions of Claims 7-9, 12, 19-21 and 24 Over the Cited Art*

In the Final Office Action dated December 11, 2009, claims 7-9, 12, 19-21, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter "Vaananen") in view of 3GPP TS 23,140 v4.4.0 (2001-09) (3rd Generation Partnership Project; Technical Specification Group Terminals; Multimedia Messaging Service (MMS); Functional description; Stage 2 (Release 4)" (hereinafter "3GPP MMS"). This rejection should be withdrawn for at least the reason that Vaananen in view of 3GPP MMS do not embody all elements of Applicants' claims 7-9, 12, 19-21, and 24.

a. *3GPP MMS fails to Disclose a First MMSE That is Different From a Second MMSE, and Communication Between Two MMS Servers.*

In the Final Office Action dated December 11, 2009, the examiner alleged the following, with regard to Applicants' claims 7 and 19:

> "Vaananen discloses the claimed invention except for the first MMSE is different from a second MMSE, and communication between two MMS servers. However, 3GPP MMS discloses interworking between different MMSEs including communications between MMS servers based on SMTP (see clauses 7.7, 8.4 and Figure 5.). It would have been obvious to a person with ordinary skill in the art at the time the invention was made

to incorporate 3GPP MMS' teaching into Vaanannen's system for the purpose of serving MMS User Agents across different MMSEs by interworking between different MMS service providers, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers."[44]

Applicants respectfully disagree with examiner's characterization of 3GPP MMS. 3GPP MMS discloses architecture and operation of MMS networks. Such architecture *requires* use of a "MMS Relay/Server responsible <u>for storage and handling of incoming and outgoing messages and for the transfer of messages</u> between different messaging systems[45]." The mandatory nature of such a MMS Relay/Server is noted at page 18 of 3GPP MMS, which states: "[w]hen a user intends to send a MM to one or several destinations <u>the **MM shall be submitted** to the originator MMS Relay/Server.</u>" The routing function of the MMS Relay/Server is further emphasized at page 19 of 3GPP MMS, which states:

> "Upon reception of an MM from an originator MMS User Agent ... [a]
> **MMS Relay/Server**:
>
>   * * *
>
> - is responsible for **retaining the MM until the earliest desired time of delivery**, if the optional feature of earliest time of delivery is supported by the originator MMS Relay/Server. If this feature is not supported then the MM is immediately routed forward, [and]
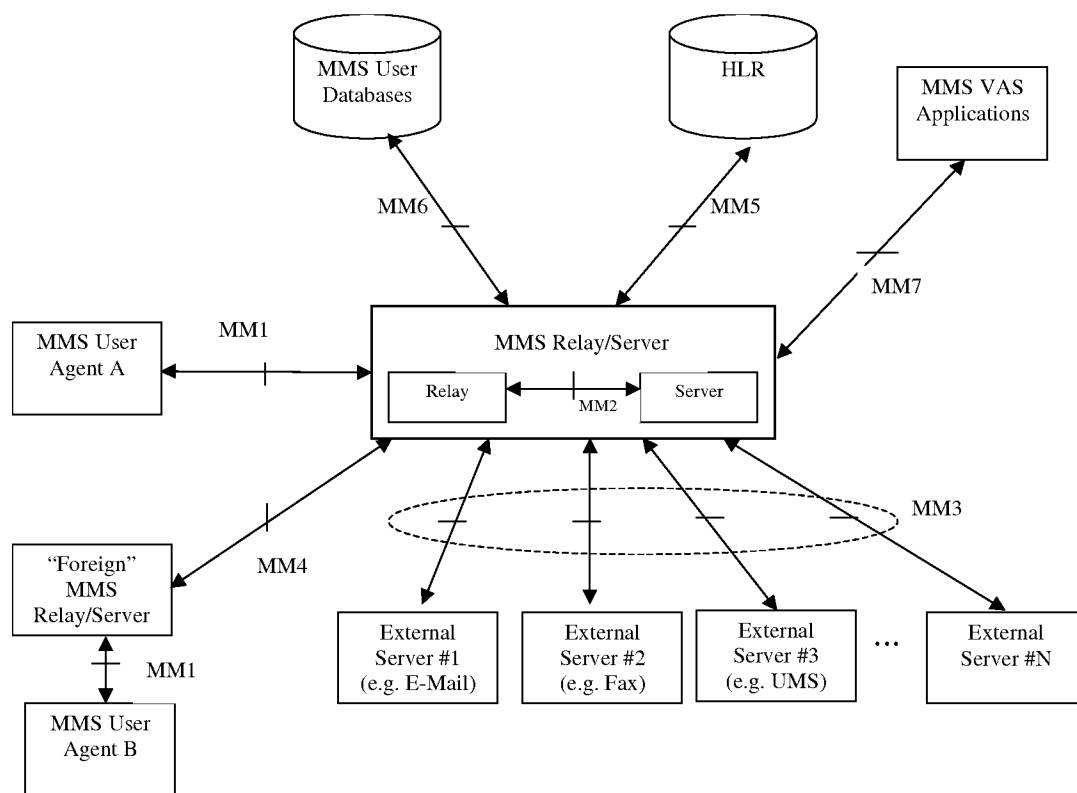>
>   * * *
>
> - is responsible to **route the MM towards the MM recipients ... .**"

MMS Reference Architecture consistent with the foregoing text is disclosed in 3GPP MMS at Figure 4 thereof, as reproduced below.

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[44] December 11, 2009 Office Action, pages 9-10.
[45] 3GPP MMS, page 13.

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EXPEDITED PROCEDURE

The foregoing excerpts from 3GPP MMS indicate that the MMS Relay/Server provides a primary message storage and routing function, and that all messages must be routed through a MMS Relay/Server.

3GPP MMS further discloses that messages may be transferred between multiple MMSEs, with reference to Figure 5 thereof, as reproduced below.
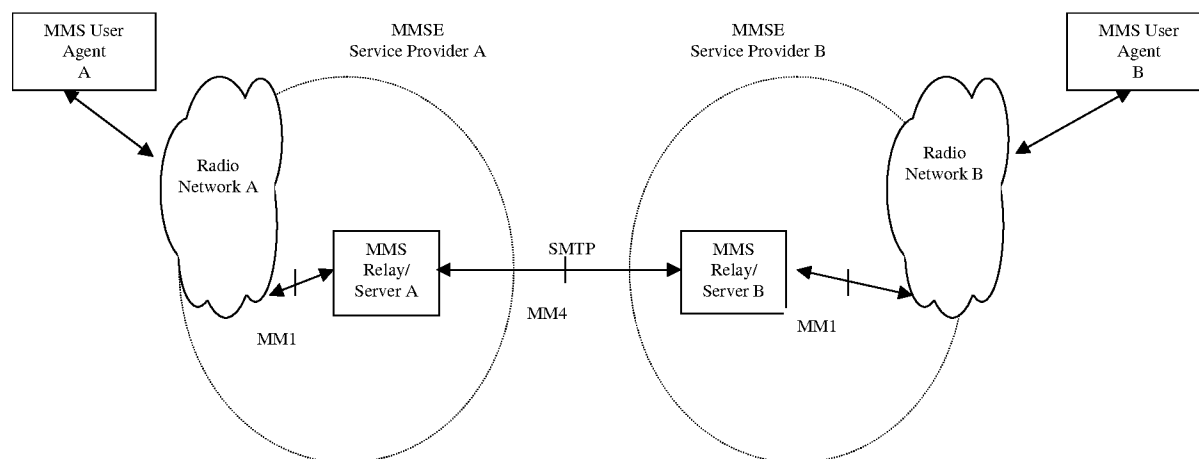
The foregoing Figure of 3GPP MMS again relies upon a MMS Relay/Server within each MMSE to provide a primary message routing and storage function.

Nothing in 3GPP MMS teaches or suggests <u>direct</u> wireless delivery of a multimedia message from a first multimedia messaging service (MMS) user agent located in a first multimedia messaging service environment (MMSE) to a second MMS user agent located in a second MMSE, the system. In fact, as discussed above, 3GPP MMS specifically requires that communication from a MMS user agent A in a first MMSE to a MMS user agent B in a second MMSE go through the MMSE relay/server - <u>not</u> directly from user agent A in a first MMSE to a user agent B in a second MMSE. This is in direct contrast to Applicants' claims 7 and 19, as supported in part by Applicants' FIG. 6 (reproduced below).
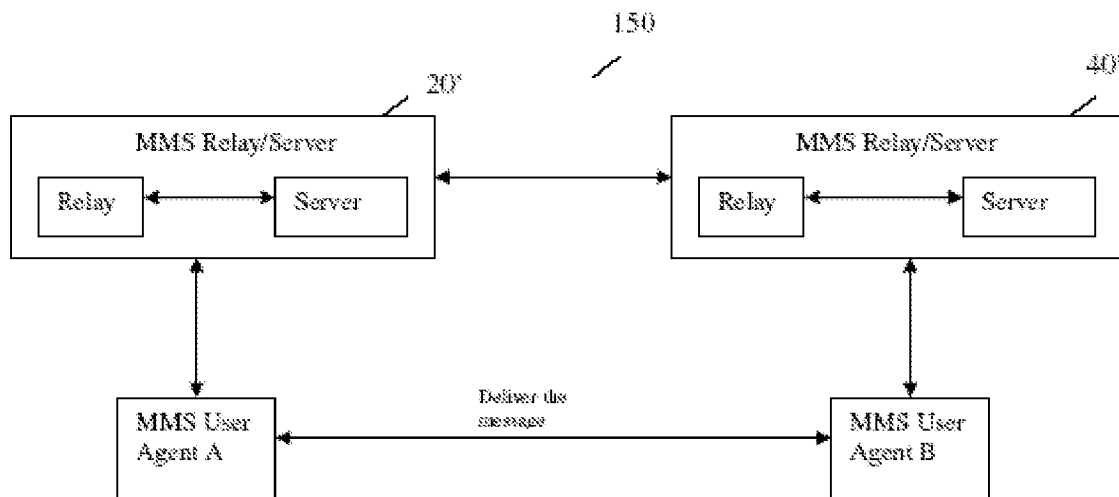

FIG. 6

Accordingly, the proposed combination of 3GPP MMS and Vaananen fails to embody all elements of Applicants' independent claims 7 or 19. Moreover, any hypothetical modification of 3GPP MMS to eliminate a MMS Relay/Server would require a change in basic operating principles of 3GPP MMS (or substantial

reconstruction or redesign of the design embodied in such reference). The Federal Circuit that such changes cannot support suggestion to combine or modify references to arrive at the claimed invention[46].

For at least the foregoing reasons, withdrawal of the rejections of Applicants' independent claims 7 and 19 is warranted, and is respectfully requested. Because dependent claims inherently include all the features of the claims on which they depend[47], all claims depending (whether directly or indirectly) from independent claims 7 or 19 are likewise patentably distinguished over the cited art. Withdrawal of the rejections of all claims depending from independent claims 7 or 19, including at least claims 8, 9, 12, 20, 21, and 24 is warranted, and is respectfully requested.

6.   *Patentable Distinctions of Dependent Claims 10-11 and 22-23 Over the Cited Art*

In the Final Office Action dated December 11, 2009, claims 10-11 and 22-23 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over Vaananen and3GPP MMS, further in view of Caloud. Such rejections are inapposite to Applicants' claims.

a.   *Dependency on Independent Claims 7 and 19*

Claims 10-11 and 22-23 depend from independent claims 7 and 19, respectively. Patentable distinctions of claims 7 and 16 over the cited art have been discussed hereinabove. Because dependent claims inherently include all the features of the claims on which they depend[48], all claims depending (whether directly or indirectly) from independent claims 7 or 19 are likewise patentably distinguished over the cited art for at least the same reasons articulated in connection with claims 7 and 19 hereinabove. Accordingly, withdrawal of the rejections of all claims depending from independent

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[46] *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).
[47] 35 U.S.C. 112, fourth paragraph.
[48] 35 U.S.C. 112, fourth paragraph.

claims 7 or 19, including at least claims 10-11 and 22-23, is warranted, and is respectfully

requested.

> ### b.   3GPP MMS Fails to Disclose the First MMSE is Different From a second MMSE, and communication between two MMS servers.

In the Final Office Action dated December 11, 2009, the examiner alleged the

following with regard to claims 10 and 22:

> "Vaananen and 3GPP MMS disclose the claimed invention except for the
> international mobile subscriber identity (IMSI) address. Caloud teaches
> the means for sending the MSISDN to a core network (col. 4, lines 38-52,
> program memory 103 and interface circuits 104), means for obtaining an
> international mobile subscriber identity (IMSI) address corresponding to
> the MSISDN from the core network (FIG. 1, the resolution table 127 col.
> 6, lines 3-20, column 127B corresponds to an IMSI number and/or an
> MSISDN), means for sending the obtained IMSI address to the core
> network (col. 4, lines 38-52, program memory 103 and interface circuits
> 104) and means for obtaining the Internet address corresponding to the
> IMSI from the core network (FIG. 1, the resolution table 127, col. 6, lines
> 3-20). It would have been obvious to a person with ordinary skill in the art
> at the time the invention was made to incorporate Caloud's teaching into
> Vaanannen's and 3GPP MMS' system for the purpose of serving MMS
> User Agents across international MMSEs by interworking between
> international MMS service providers using IMSI, thereby increasing
> satisfaction/convenience for MMS users and revenues for MMS service
> providers."[49]

It has been previously demonstrated herein (in connection with the rejections of

claims 7 and 19) that 3GPP MMS fails to disclose the first MMSE is different from a

second MMSE. Such reasons are hereby incorporated by reference with respect to claims

10 and 22.Accordingly, withdrawal of the rejections of dependent claims 10 and 22 is

warranted, and is respectfully requested.

> ### c.   The Cited Art Fails to Disclose Obtaining and Sending an IMSI Address as Required by in Applicant's Claims

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[49] December 11, 2009 Office Action, pages 11-12.

In the Final Office Action dated December 11, 2009, the examiner alleged the following with regard to claims 10 and 22:

> "Vaananen and 3GPP MMS disclose the claimed invention except for the international mobile subscriber identity (IMSI) address. Caloud teaches the means for sending the MSISDN to a core network (col. 4, lines 38-52, program memory 103 and interface circuits 104), means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network (FIG. 1, the resolution table 127 col. 6, lines 3-20, column 127B corresponds to an IMSI number and/or an MSISDN), means for sending the obtained IMSI address to the core network (col. 4, lines 38-52, program memory 103 and interface circuits 104) and means for obtaining the Internet address corresponding to the IMSI from the core network (FIG. 1, the resolution table 127, col. 6, lines 3-20). It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Caloud's teaching into Vaanannen's and 3GPP MMS' system for the purpose of serving MMS User Agents across international MMSEs by interworking between international MMS service providers using IMSI, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers."[50]

It has been previously established hereinabove that neither Vaananen nor Caloud discloses obtaining and sending an IMSI address as required by Applicants' claims. Such arguments are hereby incorporated by reference with respect to claims 10 and 22. 3GPP MMS fails to remedy the deficiency of Vaananen and Caloud in disclosing such feature. For at least the reason that the cited art fails to disclose obtaining and sending an IMSI address as required by claims 10 and 22, the rejections of such claims under 35 U.S.C. 103 should be withdrawn.

d.   Vaananen fails to disclose a home location register (HLR).

In the Final Office Action dated December 11, 2009, the examiner alleged with regard to claims 11 and 23 that Caloud discloses obtaining the IMSI address from the HLR. It has been previously demonstrated herein (e.g., in connection with claims 5 and 17) that neither Vaananen nor Caloud discloses obtaining an IMSI address from the HLR. Such arguments are hereby incorporated by reference with respect to claims 11 and 23.

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[50] December 11, 2009 Office Action, pages 11-12.

3GPP MMS fails to remedy the foregoing deficiency of Vaananen and Caloud in disclosing such feature. For at least the reason that the cited art fails to disclose obtaining an IMSI from a HLR as required by claims 11 and 23, the rejections of such claims under 35 U.S.C. 103 should be withdrawn

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of Applicants' pending claims are in condition for allowance. Issuance of a notice of allowance are earnestly solicited. Should any issues remain that may be amenable to telephonic resolution, the examiner is invited to telephone the undersigned attorneys to resolve such issues as expeditiously as possible.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

By: /vincent k. gustafson/   **Dated**: February 11, 2010
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